

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An image capture system, comprising:

a plurality of rows of pixels, each row comprising:

a reset line for providing a reset signal;

a plurality of pixels, each pixel comprising:

a first FET having a gate terminal coupled to the reset line, a drain terminal coupled to a supply voltage, and a source terminal coupled to a readout node; and

a photodetector coupled between a first ground and the readout node;

a switching device selectively coupled to one of [[the]] reset lines in the rows of pixels; and

a reference voltage source coupled between a second ground and one of the reset lines via the switching device, wherein the reference voltage source generates a reset voltage that is independent of the supply voltage and the first and second grounds have the same potential.

Claim 2 (currently amended): An image capture system, comprising:

a plurality of rows of pixels, each row comprising:

a reset line for providing a reset signal;

a plurality of pixels, each pixel comprising:

a first FET having a gate terminal coupled to the reset line, a drain terminal coupled to a supply voltage, and a source terminal coupled to a readout node; and

a photodetector coupled between a first ground and the readout node;

a switching device selectively coupled to one of reset lines in the rows of pixels;
a reference voltage source coupled between a second ground and one of the reset lines via
the switching device, wherein the reference voltage source generates a reset voltage that is
independent of the supply voltage and the first and second grounds have the same
potential; and

The image capture system of claim 1, further comprising an operational amplifier buffer comprising (1) an output coupled by the switching device to one of the reset lines, (2) a non-inverting input coupled to the reference voltage source to receive the reset voltage, and (3) an inverting input coupled to the output in a feedback loop, wherein the feedback loop does not pass through the readout node.

Claim 3 (original): The image capture system of claim 1, wherein the first FET further comprises an n-channel enhancement mode MOSFET.

Claim 4 (previously presented): The image capture system of claim 1, wherein the reset voltage is greater than the supply voltage.

Claim 5 (previously presented): The image capture system of claim 1, further comprising a second FET having a gate terminal coupled to the readout node and a drain terminal coupled to the supply voltage.

Claim 6 (previously presented): The image capture system of claim 5, further comprising a third FET having a gate terminal coupled to a row select line, a source terminal coupled to a column line, and a drain terminal coupled to a source terminal of the second FET.

Claims 7 to 13 (canceled).

Claim 14 (previously presented): The image capture system of claim 6, wherein the switching device comprises a multiplexer.

Claim 15 (previously presented): A method comprising:

providing a first reset signal to a row of pixels, the first reset signal being derived from a reference voltage that is independent of a supply voltage;

resetting pixels in the row of pixels in response to the first reset signal;

reading a first plurality of voltage values generated at the pixels following a light exposure interval;

providing a second reset signal to the row of pixels, the second reset signal being the reference voltage;

reading a second plurality of voltage values from the pixels; and

generating a plurality of pixel values using the first and the second pluralities of voltage values.

Claim 16 (previously presented): The method of claim 15, wherein the plurality of pixel values equal the corresponding second plurality of voltage values minus the corresponding first plurality of voltage values.

Claim 17 (previously presented): The method of claim 15, wherein the first plurality of voltage values are approximately proportional to light intensities detected by the pixels during the light exposure interval.

Claim 18 (previously presented): The method of claim 15, further comprising repeating the providing a first reset signal, reading a first plurality of voltage values, providing a second reset signal, reading a second plurality of voltage values, and generating a plurality of pixel values for another row of pixels.

Claim 19 (original): The method of claim 15, wherein the generating is performed by a column circuit.

Claim 20 (previously presented): The method of claim 15 wherein the reading a first plurality of voltage values comprises exposing photodiodes to incident light.

Claim 21 (previously presented): The image capture system of claim 6, further comprising an operational amplifier comprising (1) an output coupled by the switching device to one of the reset lines, (2) a non-inverting input coupled to the reference voltage source to receive the reset voltage, and (3) an inverting input coupled to the output in a feedback loop, wherein the feedback loop does not pass through the readout node.

BEST AVAILABLE COPY